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JC904 U.S. PTO

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Attorney Docket No. 7485/62690
Total Pages 3
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ASSISTANT COMMISSIONER FOR PATENTS
Box Patent Application
Washington, D. C. 20231

Sir:

Transmitted herewith for filing under 37 CFR 1.53(b) are the specification and claims of the nonprovisional patent application of:

jc886 U.S. PTO
09/641793
08/18/00

Noel E. Zeller
Inventor(s)

TRAVEL ALARM
Title of Invention

APPLICATION ELEMENTS ENCLOSED:

1. Specification (total pages 11 including:
 - a. 3 pages of claims (claims)
 - b. 1 page(s) Abstract
2. 6 sheets of X informal ___ formal drawings (Figs. 1-22)
3. Oath or declaration of Applicant(s) (2 total pages)
 - a. _____ Newly executed (original or copy)
 - b. Unexecuted
 - c. _____ Copy from a prior application (37 CFR 1.63(d))
(for continuation/divisional with Item 14 completed)
4. _____ Deletion of Inventor(s)
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b)
5. _____ Incorporation By Reference
The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied in item 3b is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.
6. _____ Microfiche Computer Program (Appendix)

APPLICATION PARTS ENCLOSED:

7. _____ An assignment of the invention to _____ (cover sheet & document(s))
8. _____ 37 CFR 3.73(b) Statement (*when there is an assignee*)
9. Power of Attorney
 - a. _____ Newly executed (original or copy)
 - b. Unexecuted
 - c. _____ Copy from a prior application

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Noel E. Zeller
Serial No. : Not Yet Known
Filed : Filing Herewith
For : TRAVEL ALARM

1185 Avenue of the Americas
New York, New York 10036

Honorable Assistant Commissioner for Patents
Washington, D.C. 20231

Attn: Box Patent Application

SIR:

**EXPRESS MAIL
CERTIFICATE OF MAILING
FOR ABOVE-IDENTIFIED APPLICATION**

"Express Mail" mailing label number: EK166980178US
Date of Deposit: August 18, 2000

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. §1.10 on the date indicated above and is addressed to the Honorable Assistant Commissioner for Patents, Washington, D.C. 20231.

Donald S. Dowden

Printed Name:

Respectfully submitted,

Donald S. Dowden
Donald S. Dowden
Registration No. 20,701
Attorney(s) for Applicants
Cooper & Dunham LLP
1185 Avenue of the Americas
New York, New York 10036
(212) 278-0400

10. Information Disclosure Statement (IDS)/PTO-1449
 Copies of IDS Citations

11. A Preliminary Amendment

12. Return Receipt Postcard (MPEP 503)

13. A small entity statement under 37 C.F.R. §1.9 and §1.27 (Unexecuted)
 Statement filed in prior application, status still proper and desired

14. If a Continuing Application, *check the appropriate box and supply the requisite information:*
 Continuation of prior application No.: _____ filed _____

Divisional of prior application No.: _____ filed _____

Continuation-in-part (CIP) of prior application No.: _____ filed _____

15. Amend the specification by inserting before the first line of page one: --This is a continuation
 divisional of application Serial No. _____ filed _____.

16. Priority of application No. _____ filed in _____ on _____. Applicant hereby claims
priority under 35 U.S.C. § 119.
 A certified copy of priority application No. _____ is enclosed.
 A certified copy of priority application No. _____ has been filed in prior application
S.N. _____ filed _____

17. Other (identify) _____

The filing fee is calculated as follows:

CLAIMS AS FILED, LESS ANY CLAIMS CANCELLED BY AMENDMENT

					Rate			Fee	
	Number Filed		Number Extra*		Small Entity	Other Entity		Small Entity	Other Entity
Total Claims	12	=	0	x	\$ 9	\$ 18	=	\$	\$ 0
Indep. Claims	4	=	1	x	\$ 39	\$ 39	=	\$ 39	\$ 0
Multiple Dependent Claims Presented: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				\$130	\$260	=	\$345	\$ 0	
If the difference in column 1 is less than zero, enter "0" in column 2				Basic Fee			\$384	\$ 0	
				Total Fee			\$384	\$ 0	

18. A check in the amount of \$ 384.00 to cover the filing fee.

19. Please charge Deposit Account No. 03-3125 in the amount of _____ for recordation of the Assignment.

20. The Commissioner is hereby authorized to charge any additional fees which may be required in connection with the following or credit any overpayment to Deposit Account No. 03-3125.

Filing fees under 37 C.F.R. § 1.16.

Patent application processing fees under 37 C.F.R. §1.17.

The issue fee set in 37 C.F.R. §1.18 at or before mailing of the Notice of Allowance, pursuant to 37 C.F.R. §1.311(b).

21. Three copies of this sheet are enclosed.

22. Other (identify) _____

CORRESPONDENCE ADDRESS:

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Respectfully submitted,



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August 18, 2000
Date

Applicant or Patentee: Noel Zeller Attorney's Docket No: 7485/62690
Serial or Patent No.: Not Yet Known
Filed or Issued:
Title of Invention or Patent: TRAVEL ALARM

**STATEMENT CLAIMING
SMALL ENTITY STATUS UNDER (37 C.F.R. §1.9(f)
AND §1.27(b)) - INDEPENDENT INVENTOR**

As a below named inventor, I hereby declare that I qualify as an independent inventor as defined in 37 C.F.R. §1.9(c)^a for purposes of paying reduced fees under 35 U.S.C. §41(a) and §41(b), with regard to the invention entitled TRAVEL ALARM described in:

the specification filed herewith
Attorney Dkt. 7485/62690 filed _____
 patent no. _____ issued _____

I have not assigned, granted, conveyed or licensed, and am under no obligation under contract or law to assign, grant, convey or license any rights in the invention to any person who could not be classified as an independent inventor under 37 C.F.R. §1.9(c)^a if that person has made the invention, or to any concern which would not qualify as a small business concern under 37 C.F.R. §1.9(d)^a or a nonprofit organization under 37 C.F.R. §1.9(e)^a.

If I have assigned, granted, conveyed, or licensed, or if I am under an obligation under contract or law to assign, grant, convey, or license any rights in the invention to any person, concern, or organization, these are listed below.^b

Name: Zelco Industries, Inc. Address: _____
65 Haven Avenue Mount Vernon, New York 10553-4445
 Individual Small Business Concern Nonprofit Organization

Name: _____
Address: _____

 Individual Small Business Concern Nonprofit Organization

Name: _____
Address: _____

_____ Individual Small Business Concern Nonprofit Organization

I acknowledge the duty to file in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. 37 C.F.R. §1.28(b)^a.

^aSee Reverse

^bNOTE: Separate statements are required from each named person, concern, or organization having rights to the invention averring to their status as small business entities. 37 C.F.R. §1.27.

(c) An independent inventor as used in this chapter means an inventor who (1) has not assigned, granted, conveyed, or licensed, and (2) is under no obligation under contract or law to assign, grant, convey, or license, any rights in the invention to any person who could not likewise be classified as an independent inventor if that person had made the invention, or to any concern which would not qualify as a small business concern or a nonprofit organization under this section.

(d) A small business concern as used in this chapter means any business concern meeting the size standards set forth in 13 CFR Part 121 to be eligible for reduced patent fees. Questions related to size standards for a small business concern may be directed to: Small Business Administration, Size Standards Staff, 409 Third Street, SW, Washington, DC 20416.

(e) A nonprofit organization as use in this chapter means (1) a university or other institution of higher education located in any country; (2) an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c)(3)) and exempt from taxation under section 501(a) of the Internal Revenue Code (26 U.S.C. 501(a)); (3) any nonprofit scientific or educational organization qualified under a nonprofit organization statute of a state of this country (35 U.S.C. 201(i); or (4) any nonprofit organization located in foreign country which would qualify as a nonprofit organization under paragraphs (e)(2) or (3) of this section if it were located in this country.

§121.3-18 Definition of small business for paying reduced patent fees under Title 35, U.S. Code.

(a) Pursuant to Pub. L. 97-247, a small business concern for purposes of paying reduced fees under 35 U.S. Code 41(a) and (b) to the Patent and Trademark Office means any business concern (1) whose number of employees, including those of its affiliates, does not exceed 500 persons and (2) which has not assigned, granted, conveyed, or licensed, and is under no obligation under contract or law to assign, grant, convey or license, any rights in the invention to any person who could not be classified as an independent inventor if that person had made the invention, or to any concern which would not qualify as a small business concern or a nonprofit organization under this section. For the purpose of this section concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both. The number of employees of the business concern is the average over the fiscal year of the persons employed during each of the pay periods of the fiscal year. Employees are those persons employed on a full-time, part-time or temporary basis during the previous fiscal year of the concern.

(b) If the Patent and Trademark Office determines that a concern is not eligible as a small business concern within this section, the concern shall have a right to appeal that determination to the Small Business Administration. The Patent and Trademark Office shall transmit its written decision and the pertinent size determination file to the SBA in the event of such adverse determination and size appeal. Such appeals by concerns should be submitted to the SBA at 1441 L. Street, N.W., Washington, D.C. 20416 (Attention: SBA Office of General Counsel). The appeal should state the basis upon which it is claimed that the Patent and Trademark Office initial size determination on the concern was in error; and the facts and arguments supporting the concern's claimed status as a small business concern under this section.

37 C.F.R. §1.28(b)

(b) Once status as a small entity has been established in an application or patent, fees as a small entity may thereafter be paid in that application or patent without regard to a change in status until the issue fee is due or any maintenance fee is due. Notification of any change in status resulting in loss of entitlement to small entity status must be filed in the application or patent prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate pursuant to §1.9 of this part. The notification of change in status may be signed by the applicant, any person authorized to sign on behalf of the assignee, or an attorney or agent of record or acting in a representative capacity pursuant to §1.34(a) of this part.

Name of Inventor: Noel Zeller

Signature of Inventor: _____ Date: _____

Address of Inventor : c/o Zelco Industries, Inc. 65 Haven Avenue, Mount Vernon, New York 10553-4445

Name of Inventor: _____

Signature of Inventor: _____ Date: _____

Address of Inventor : _____

Applicant or Patentee: Noel E. ZellerSerial or Patent No.: Not Yet KnownFiled or Issued: _____ Title of Invention or
Patent: TRAVEL ALARM

**VERIFIED STATEMENT (DECLARATION) CLAIMING
SMALL ENTITY STATUS UNDER 37 C.F.R. §1.9(f)
AND §1.27(c) - SMALL BUSINESS CONCERN**

I hereby declare that I am:

 the owner of the small business concern identified below. an official of the small business concern empowered to act on behalf of the concern identified below:Name of Concern: Zelco Industries, Inc.Address of Concern: 65 Haven Avenue Mount Vernon, New York

I hereby declare that the above identified small business concern qualifies as a small business concern as defined in 13 C.F.R. §121.3-18, reproduced in 37 C.F.R. §1.9(d), for purposes of paying reduced fees under 35 U.S.C. §41(a) and §41(b), in that the number of employees of the concern, including those of its affiliates, does not exceed five hundred (500) persons. For purposes of this verified statement, the number of employees of the business concern is the average number, over the previous fiscal year, of the persons employed by the business concern on a full-time, part-time, or temporary basis during each pay period of the fiscal year, and concerns are affiliates of each other when, either directly or indirectly, one concern controls or has power to control the other, or a third party or parties controls or has power to control both.

I hereby declare that rights under contract or law have been conveyed to and remain with the small business concern identified above with regard to the invention entitled

TRAVEL ALARM described in:

the specification filed herewith
 application serial no. _____ filed _____ Patent No. _____
 issued _____

If the rights held by the above identified small business concern are not exclusive, each individual, concern or organization having rights to the invention is listed below^a and no rights to the invention are held by any person, other than the inventor, who could not qualify as an independent inventor under 37 C.F.R. §1.9(c)^b, any concern which could not qualify as a small business concern under 37 C.F.R. §1.9(d)^b or as a nonprofit organization under 37 C.F.R. §1.9(e)^b.

Name: None

Address: _____

 Individual Small Business Concern Nonprofit Organization

^a NOTE: Separate verified statements are required for each named person, concern, or organization having rights to the invention averring to their status as small entities. 37 C.F.R. §1.27.

^b Page 2.

(c) An independent inventor as used in this chapter means any inventor who (1) has not assigned, granted, conveyed, or licensed, and (2) is under no obligation under contract or law to assign, grant, convey, or license, any rights in the invention to any person who could not likewise be classified as an independent inventor if that person had made the invention, or to any concern which would not qualify as a small business concern or a nonprofit organization under this section.

(d) A small business concern as used in this chapter means any business concern as defined by the Small Business Administration in 13 C.F.R. §121.3-18, published on September 30, 1982 at 47 FR 43273. For the convenience of the users of these regulations, that definition states:

§121.3-18 Definition of small business for paying reduced patent fees under Title 35, U.S. Code.

(a) Pursuant to Pub. L. 97-247, a small business concern for purposes of paying reduced fees under 35 U.S. Code 41(a) and (b) to the Patent and Trademark Office means any business concern (1) whose number of employees, including those of its affiliates, does not exceed 500 persons and (2) which has not assigned, granted, conveyed, or licensed, and is under no obligation under contract or law to assign, grant, convey or license, any rights in the invention to any person who could not be classified as an independent inventor if that person had made the invention, or to any concern which would not qualify as a small business concern or a nonprofit organization under this section. For the purpose of this section concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both. The number of employees of the business concern is the average over the fiscal year of the persons employed during each of the pay periods of the fiscal year. Employees are those persons employed on a full-time, part-time or temporary basis during the previous fiscal year of the concern.

(b) If the Patent and Trademark Office determines that a concern is not eligible as a small business concern within this section, the concern shall have a right to appeal that determination to the Small Business Administration. The Patent and Trademark Office shall transmit its written decision and the pertinent size determination file to the SBA in the event of such adverse determination and size appeal. Such appeals by concerns should be submitted to the SBA at 1441 L Street, N.W., Washington, D.C. 20416 (Attention: SBA Office of General Counsel). The appeal should state the basis upon which it is claimed that the Patent and Trademark Office initial size determination on the concern was in error; and the facts and arguments supporting the concern's claimed status as a small business concern under this section.

(e) A nonprofit organization as used in this chapter means (1) a university or other institution of higher education located in any country; (2) an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c)(3)) and exempt from taxation under section 501(a) of the Internal Revenue Code (26 U.S.C. 501(a)); (3) any nonprofit scientific or educational organization qualified under a nonprofit organization statute of a state of this country (35 U.S.C. 201(i)); or (4) any nonprofit organization located in a foreign country which would qualify as a nonprofit organization under paragraphs (e)(2) or (3) of this section if it were located in this country.

37 C.F.R. §1.28(b)

(b) Once status as a small entity has been established in an application or patent, fees as a small entity may thereafter be paid in that application or patent without regard to a change in status until the issue fee is due or any maintenance fee is due. Notification of any change in status resulting in loss of entitlement to small entity status must be filed in the application or patent prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate pursuant to §1.9 of this part. The notification of change in status may be signed by the applicant, any person authorized to sign on behalf of the assignee, or an attorney or agent of record or acting in a representative capacity pursuant to §1.34(a) of this part.

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. 37 C.F.R. §1.28(b).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. §1001, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Name of Person Signing: Gabrielle Zeller

Title In Organization: Vice President

Address: c/o Zelco Industries, Inc., 65 Haven Avenue, Mount Vernon, New York 10553-4445

Signature: _____

Date of Signature: _____

PATENT
7485/62690

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
APPLICATION FOR UTILITY PATENT

Title : TRAVEL ALARM
Inventors : Noel E. Zeller

Donald S. Dowden
Reg. No. 20,701
Attorney for Applicant

Cooper & Dunham LLP
1185 Avenue of the Americas
New York, New York 10036

BACKGROUND OF THE INVENTION

Field of the Invention

This invention relates to travel alarms and, more particularly, to a novel and highly effective travel alarm that can be used in the dark, has a long-lasting battery, is small yet easy to read, and has an important auxiliary use.

Description of the Prior Art

Travel alarms are a useful backup for guests at hotels and motels. Such establishments usually offer a wake-up service, but the service sometimes fails. Private homes, campsites, and cruise ships may not offer a wake-up service. Moreover, a time reminder in a hotel lobby, at an airport, train station, etc., may be unavailable. A travel alarm can be used in such cases as a reminder of an appointment, of a task that needs to be accomplished, of a train or plane to board, etc. Many travelers therefore regard travel alarms as indispensable.

However, conventional travel alarms have some serious drawbacks. Those that do not have an illuminated face cannot be easily used in the dark. If a person traveling with such an alarm wishes to check the time in a darkened room in the middle of night, it is first necessary to turn on a light, which can cause eye discomfort and disturb anyone else who happens to be in the room.

On the other hand, if the face is illuminated, this constitutes a serious drain on the clock battery, especially if the clock light is accidentally turned on while the clock is, say, packed in a suitcase. If the timekeeping mechanism of the clock is powered by the same battery, there is a risk of battery failure rendering the clock useless until the battery can be replaced or recharged.

A travel alarm should be physically small and weigh little for easy packing. However, a small clock face can be difficult to read.

Another problem with conventional travel alarm clocks is that they serve no purpose other than telling the time and sounding an alarm at a set time. Other functions that a traveler may desire necessitate the carrying of other items. This makes packing more difficult and increases the probability that a needed item will be left at home or, worse, in a hotel when the

traveler moves on.

OBJECTS AND SUMMARY OF THE INVENTION

An object of the invention is to remedy the problems of conventional travel alarm clocks noted above and, in particular, to provide a travel alarm clock that can be used in the dark, that has a long-lasting battery, that is small yet easy to read, and that has an important auxiliary use.

The foregoing and other objects are attained in accordance with the invention by providing a clock having a face, a light for illuminating the face, a switch for controlling the light, and means preventing the switch from turning the light on when the clock is stored and enabling the switch to turn the light on when the clock is deployed.

In accordance with an independent aspect of the invention, there is provided a clock comprising a face, a magnifying lens that can overlie the face so that the lens magnifies the face or can be displaced relative to the face so that it can magnify another object, and a light fixed relative to the lens for illuminating the lens. A switch controls the light, and a cover covers the lens and face when the clock is stored and uncovers at least the face when the clock is deployed. A shaft is fixed relative to the cover and can pivot about an axis relative to the face and lens to displace the cover from the face. A first pair of contacts is fixed relative to the cover, and a second pair of contacts is fixed relative to the lens. The contacts are sufficiently aligned to enable the switch to turn the light on only when the cover and lens are sufficiently displaced relative to each other.

In accordance with another independent aspect of the invention, there is a provided a clock comprising a face and a magnifying lens and being capable of assuming a storage configuration and at least one deployment configuration. The lens and face are adjacent to each other in the storage configuration and spaced apart from each other in the deployment configuration. In the storage configuration, the overall dimensions of the clock are minimized. In the deployment configuration, the lens is optimally positioned to magnify the face or can be used to magnify another object.

BRIEF DESCRIPTION OF THE DRAWINGS

A better understanding of the objects, features and advantages of the invention can be gained from the following detailed description of the preferred embodiments thereof, in conjunction with the appended figures of the drawing, wherein:

- Fig. 1 is a top view of an embodiment of the invention in a storage configuration;
- Fig. 2 is a front view corresponding to Fig. 1;
- Fig. 3 is a right view thereof;
- Fig. 4 is a view corresponding to Fig. 2 showing the clock in a first deployment configuration;
- Fig. 5 is a top view corresponding to Fig. 4;
- Fig. 6 is a view corresponding to Fig. 4 with the lens positioned to magnify the clock face;
- Fig. 7 is a top view corresponding to Fig. 6;
- Fig. 8 is a rear view corresponding to Fig. 7;
- Fig. 9 is a left-side view corresponding to Figs. 4 and 5;
- Fig. 10 is a front view showing a second deployment configuration, in which the lens deployed for magnifying an object other than the clock face;
- Fig. 11 is a top view corresponding to Fig. 10;
- Fig. 12 is a view corresponding to Fig. 2 showing in broken lines some interior mechanism;
- Fig. 13 is a view taken along the line 13-13 of Fig. 12 and looking in the direction of the arrows;
- Fig. 14 is a fragmentary view taken along the line 14-14 of Fig. 13, looking in the direction of the arrows, and showing the clock face;
- Fig. 15 is a view taken along the line 15-15 of Fig. 12 and looking in the direction of the arrows;
- Fig. 16 is a front view corresponding to Fig. 6 showing some of the interior mechanism in broken lines;
- Fig. 17 is a top view in cross-section corresponding to Fig. 16;

Fig. 18 is a side view of a shaft including a cam slot in accordance with the invention; Fig. 19 is a view taken along the bent line 19-19 of Fig. 16 and looking in the direction of the arrows:

Fig. 20 is a rear view of the clock with the lens deployed showing the interior mechanism in broken lines;

Fig. 21 is a sectional view taken along the line 21-21 of Fig. 20 and looking in the direction of the arrows; and

Fig. 22 is a sectional view taken along the bent line 22-22 of Fig. 20 and looking in the direction of the arrows.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

The figures show a clock 10, preferably a travel alarm clock. The clock 10 comprises a face 12, a light 14 such as a light-emitting diode (LED) for illuminating the face 12, and a switch 16 for controlling the light 14.

In accordance with the invention, means 18 is provided for preventing the switch 16 from turning the light 14 on when the clock 10 is stored and enabling the switch 16 to turn the light 14 on when the clock 10 is deployed, either for displaying the time or for performing an important auxiliary function described below. The preventing means 18 comprises a cover 19 that covers the face 12 when the clock 10 is stored and uncovers the face 12 when the clock 10 is deployed for displaying the time.

A magnifying lens 20 is provided that can overlie the face 12 so that the lens 20 magnifies the face 12 as illustrated, for example, in Figs. 7 and 17. Alternatively, the magnifying lens 20 can be displaced relative to the face 12 so that the lens 20 can magnify another object. See for example Fig. 11.

The cover 19 is fixed relative to a shaft 24. The shaft 24 and cover 19 can pivot together relative to the face 12 and lens 20. The lens 20 is mounted in a housing 26 that is fixed axially on the shaft 24 but that can pivot about the shaft 24 freely through any angle, including a full circle (360 degrees).

The shaft 24 is provided with a cam groove 28. A cam follower 30 fixed relative to

the clock face 12 tracks in the cam groove 28. The cam groove 28 is helical and extends substantially 180 degrees around the axis of the shaft 24. Upon rotation of the shaft 24 and cover 19 from the storage configuration illustrated for example in Fig. 1 to the first deployment configuration illustrated for example in Fig. 17, the cam follower 30 tracks from the end of the cam 28 nearest the cover 19, lens 20, and lens housing 26 to the end of the cam 28 nearest the clock face 12 and clock housing 29. Since the clock housing 29 is slidable axially on the shaft 24 as the shaft rotates relative to the housing, this increases the separation in a direction parallel to the axis of the shaft 24 between the lens 20 and the face 12. The pitch of the cam 28 is such that, in the deployed position illustrated in Fig. 17, wherein the cover 19 and the shaft 24 are pivoted substantially 180 degrees relative to the clock face 12, the lens 20 is optimally positioned to magnify the face 12.

As mentioned above, means 18 is provided for preventing the switch 16 from turning the light 14 on when the clock 10 is stored and enabling the switch 16 to turn the light 14 on when the clock 10 is deployed. The preventing means is best illustrated in Figs. 12, 15, 16, 19, 20, and 22.

In the closed or storage configuration illustrated for example in Figs. 1 and 12, LED contacts 40 and 42 are displaced from a plus switch contact 44 and a minus battery contact 46 (Figs. 12 and 15). In this configuration, even if the switch 16 is pressed, it will not close a circuit to the light 14. Consequently, if the clock 10 is packed in a storage configuration illustrated in Fig. 1 and the switch 16 is inadvertently pressed because of contact with, for example, another item in a suitcase, the LED 14 will not turn on, and the clock battery or batteries will not be discharged by the LED. (Of course, a conventional circuit from the clock battery or batteries to the timekeeping mechanism, such as a quartz mechanism, enables the timekeeping mechanism to track the time continuously, even when the clock 10 is stored. The timekeeping function draws very little current compared to the LED 14.)

When the cover 19 and lens 20 are displaced 180 degrees relative to each other, the contacts 40 and 46 are aligned (Fig. 19), and the contacts 42 and 44 are aligned (Fig. 22). In this condition, pressing the switch 16 completes a circuit through the LED 14, turning it on.

To deploy a clock constructed in accordance with the invention so that it can display the time, it is only necessary to pivot the cover 19 relative to the clock housing 26 so that the

clock is changed from the storage configuration illustrated for example in Fig. 1, in which the overall dimensions of the clock are minimized, to the first deployed configuration illustrated for example in Fig. 7. With the lens overlying the clock face, the clock switch, which is now at the top of the cover 19, can be pressed to turn the LED on. Since the LED 14 is mounted in the lens housing 26 and moves with the lens 20, it illuminates the lens and the clock face 12. The lens is, as indicated above, optimally positioned to magnify the clock face.

The clock also has an auxiliary use as a magnifying device. With the lens deployed in the second deployment configuration shown, for example, in Fig. 11, the contacts 40,46 and 42, 44 are respectively brought together as illustrated in Figs. 19 and 22. Then, pressing the switch 16 turns the LED 14 on so that the lens can be used as an illuminating lens for magnifying another object. The clock can thus be used as an aid for reading fine print or investigating small physical details in any nearby object of interest.

Thus there is provided in accordance with the invention a novel and highly effective travel alarm clock that can be used in the dark, that has a long-lasting battery, that is small yet easy to read, and that has an important auxiliary use. Many modifications of the preferred embodiment disclosed herein will readily occur to those skilled in the art. All such modifications as fall within the appended claims are included within the scope of the invention.

1. A clock comprising a face, a light for illuminating the face, a switch for controlling the light, and means preventing the switch from turning the light on when the clock is stored and enabling the switch to turn the light on when the clock is deployed.
2. A clock according to claim 1 wherein the preventing means comprises a cover that covers the face when the clock is stored and uncovers the face when the clock is deployed for displaying the time.
3. A clock comprising a face and a magnifying lens that can overlie the face so that the lens magnifies the face or can be displaced relative to the face so that it can magnify another object.
4. A clock according to claim 3 comprising a cover that covers the lens and face when the clock is stored and uncovers at least the face when the clock is deployed for displaying the time.
5. A clock according to claim 3 comprising:
 - a cover that covers the lens and face when the clock is stored and uncovers at least the face when the clock is deployed for displaying the time; and
 - a shaft that is fixed relative to the cover and can pivot relative to the face and lens to displace the cover from the face.
6. A clock comprising:
 - a face;
 - a magnifying lens that can overlie the face so that the lens magnifies the face or can be displaced relative to the face so that it can magnify another object;
 - a light fixed relative to the lens for illuminating the lens;
 - a switch for controlling the light;
 - a cover that covers the lens and face when the clock is stored and uncovers at least the

face when the clock is deployed for displaying the time;
a shaft that is fixed relative to the cover and can pivot about an axis relative to the face and lens to displace the cover from the face;
a first pair of contacts fixed relative to the cover; and
a second pair of contacts fixed relative to the lens; wherein:
the contacts are sufficiently aligned to enable the switch to turn the light on only when the cover and lens are sufficiently displaced relative to each other.

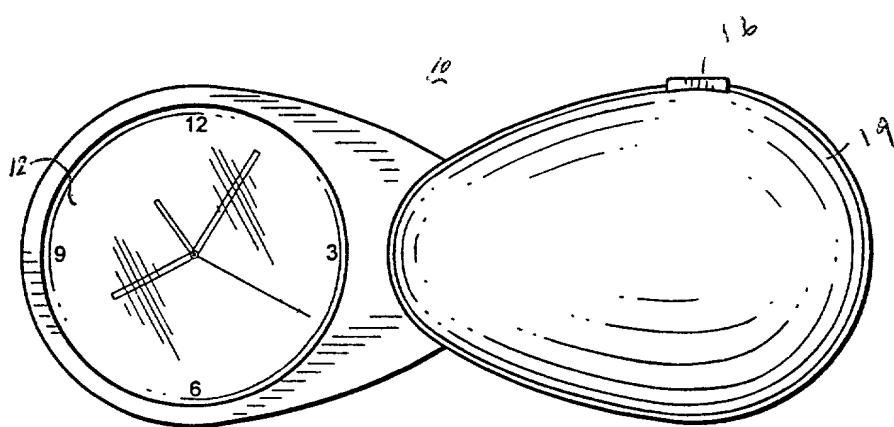
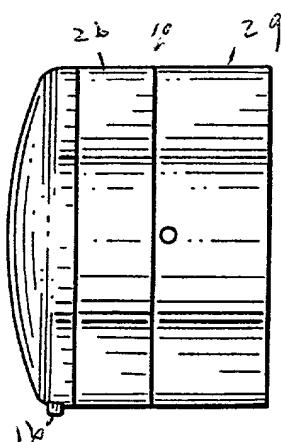
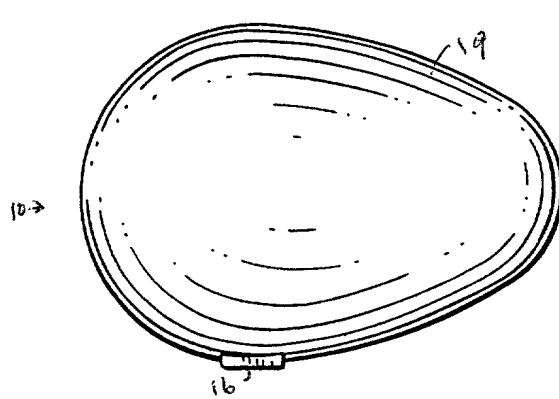
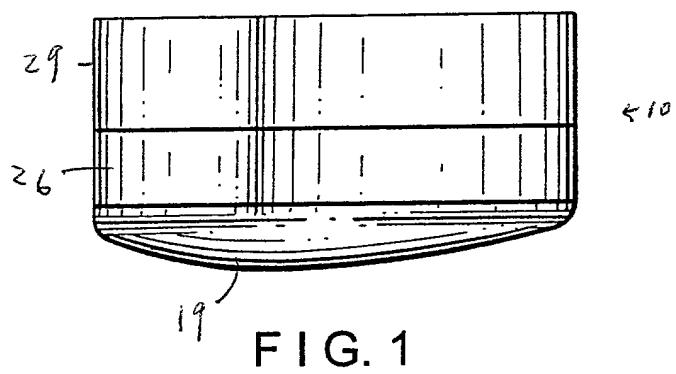
7. A clock according to claim 6 wherein the lens can pivot on the shaft substantially 360 degrees relative to the face and cover and can be deployed to magnify an object other than the face.
8. A clock according to claim 6 wherein the cover and shaft can pivot substantially 180 degrees relative to the face.
9. A clock according to claim 6 wherein the cover and shaft can pivot substantially 180 degrees relative to the face, and comprising moving means constructed so that, when the cover and shaft pivot from a condition wherein the cover covers the face to a condition wherein the cover uncovers the face, the separation along the axis of the shaft between the lens and face increases.
10. A clock according to claim 9 wherein the moving means comprises a helical cam concentric with the axis and fixed relative to one of the cover and face and a cam follower operatively associated with the cam and fixed relative to the other of the cover and face.
11. A clock according to claim 6 wherein the contacts are sufficiently aligned to enable the switch to turn the light on only when the cover and lens are displaced substantially 180 degrees relative to each other.
12. A clock comprising a face and a magnifying lens and being capable of assuming a

storage configuration and a deployment configuration, the lens and face being adjacent each other in the storage configuration and spaced apart from each other in the deployment configuration so that, in the storage configuration, the overall dimensions of the clock are minimized and, in the deployment configuration, the lens is optimally positioned to magnify the face.

ABSTRACT

A clock has a face for telling time, a light for illuminating the face, and a switch for controlling the light. The switch cannot be used for turning the light on when the clock is stored. This conserves the clock battery by preventing accidental discharge of the battery when the clock is stored, for example in a suitcase. A magnifying lens is automatically moved to an optimal position relative to the clock face to magnify the face when the clock is deployed to display the time. The magnifying lens can also be used independently to magnify, and optionally illuminate, another object.

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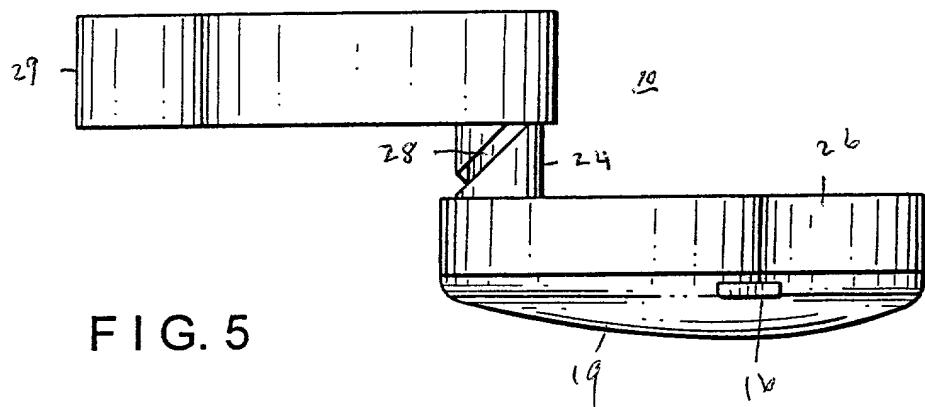


FIG. 5

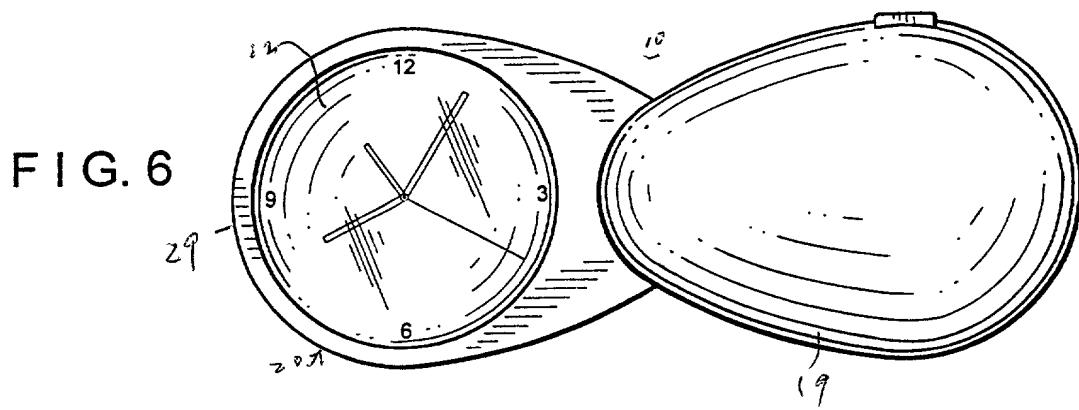


FIG. 6

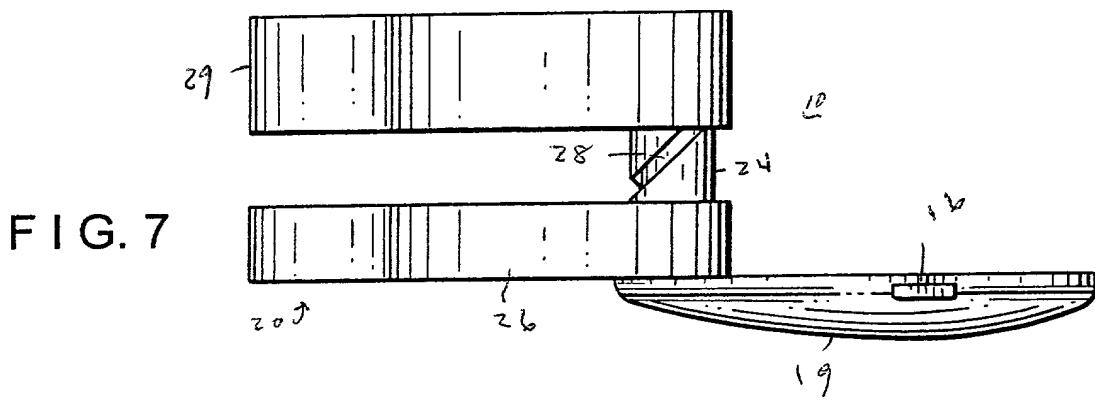


FIG. 7

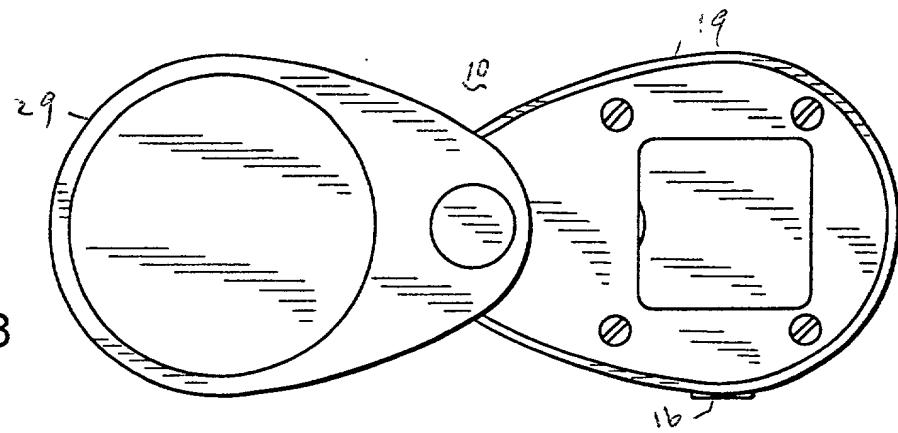


FIG. 8

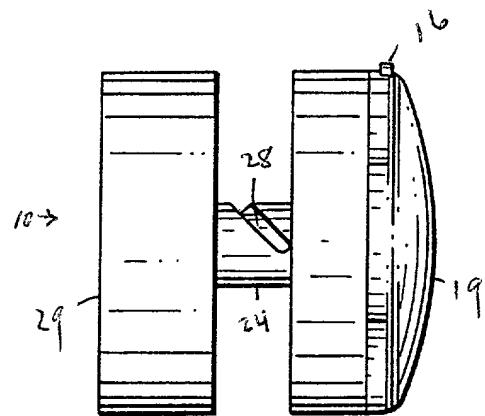


FIG. 9

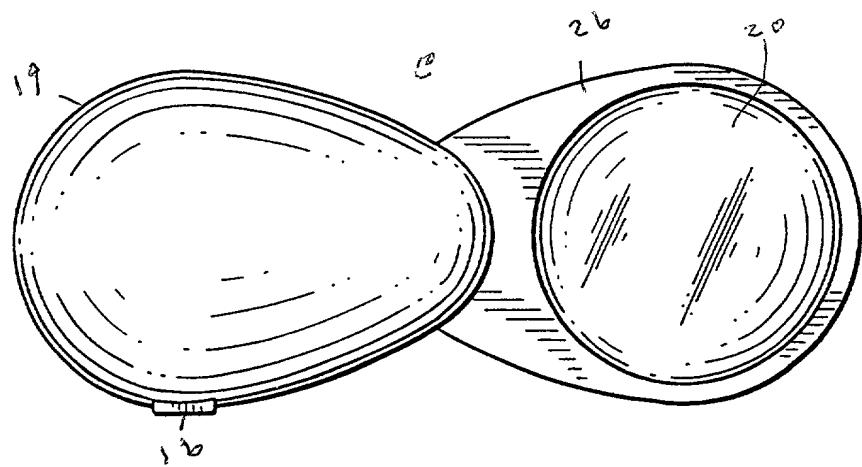


FIG. 10

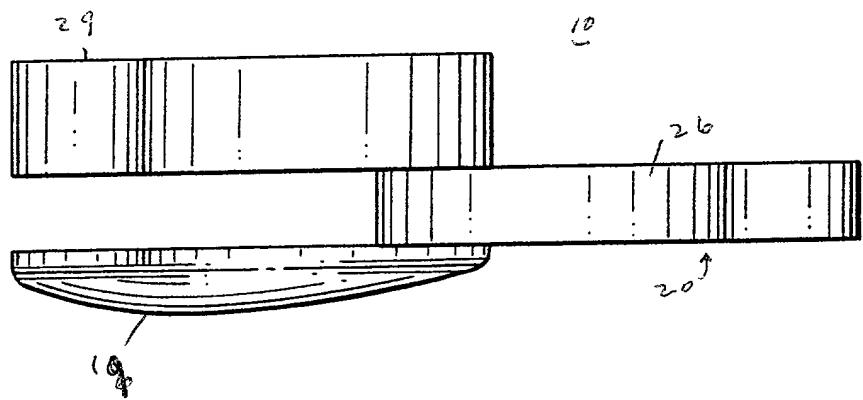


FIG. 11

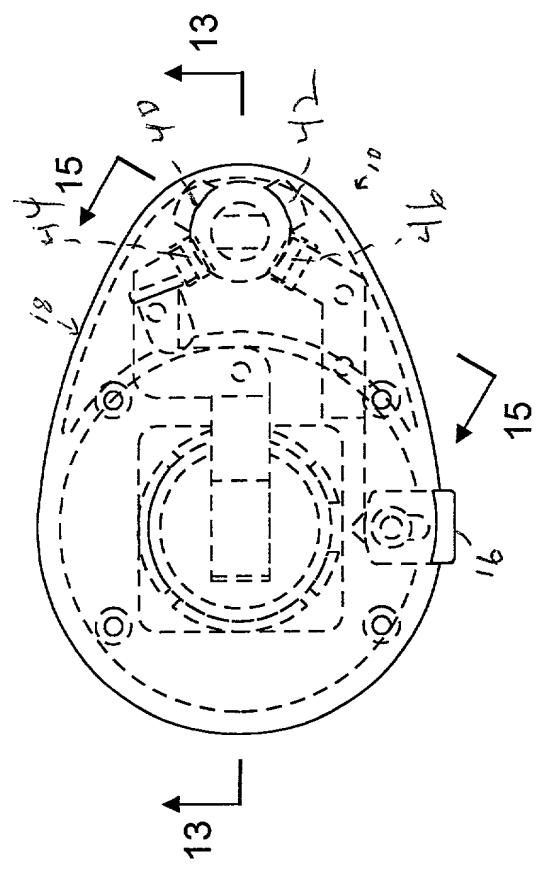


FIG. 12

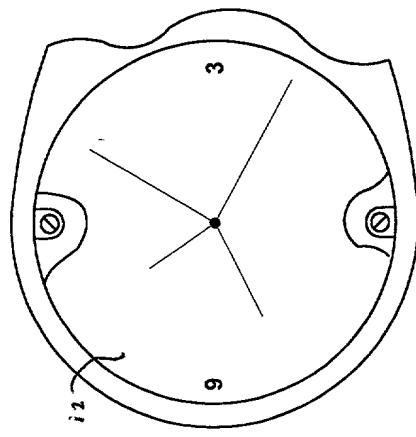


FIG. 14

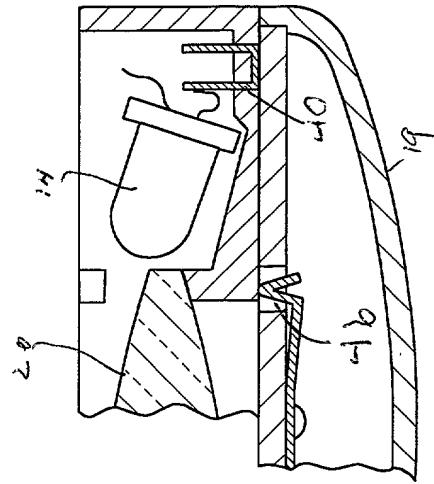


FIG. 15

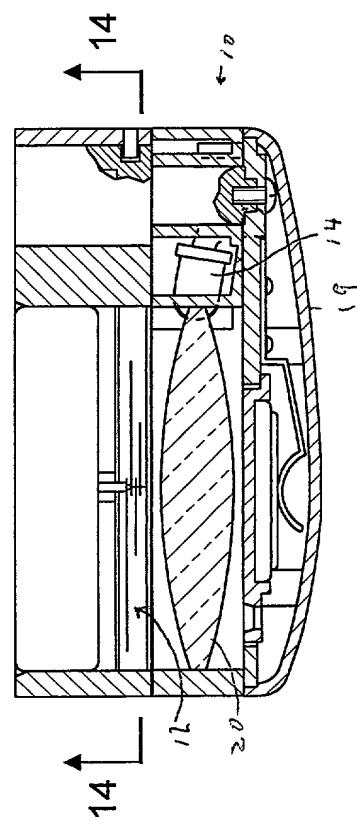


FIG. 13

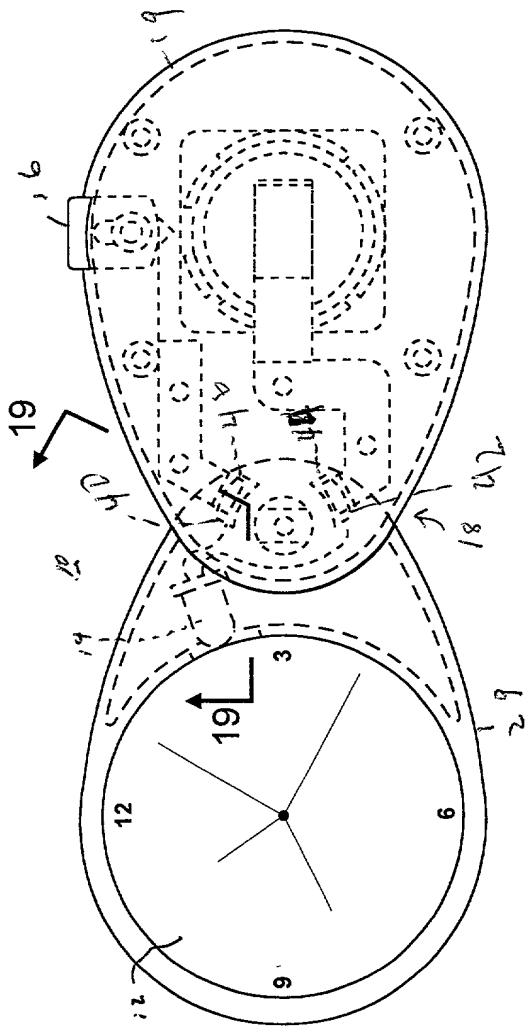


FIG. 16

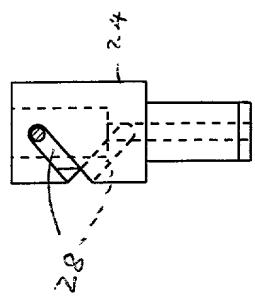


FIG. 18

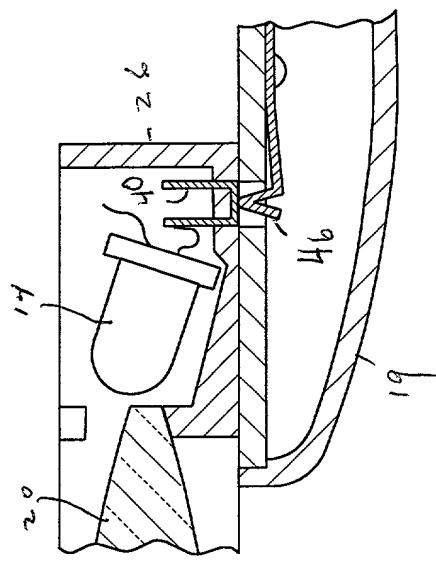


FIG. 19

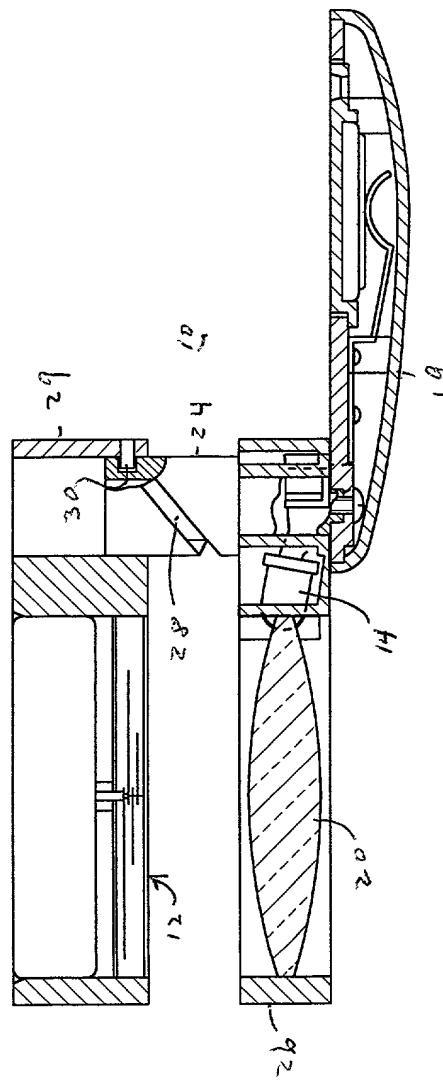


FIG. 17

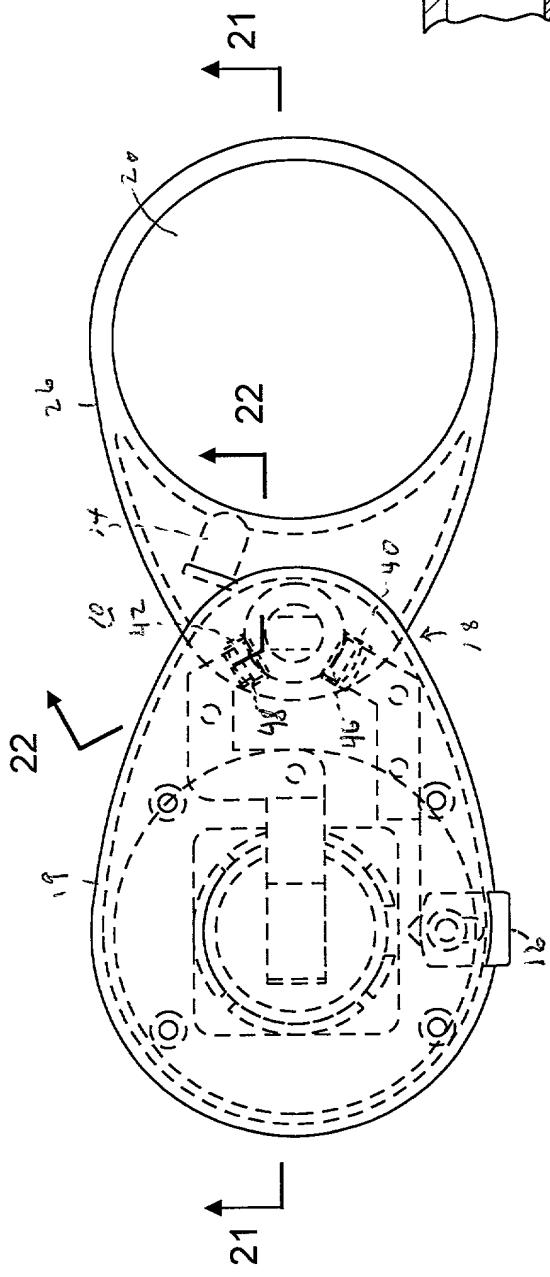


FIG. 20

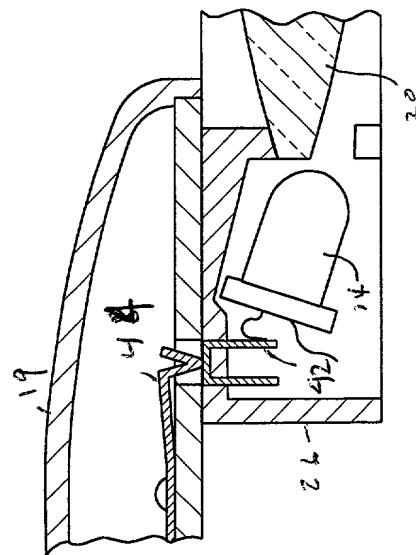


FIG. 22

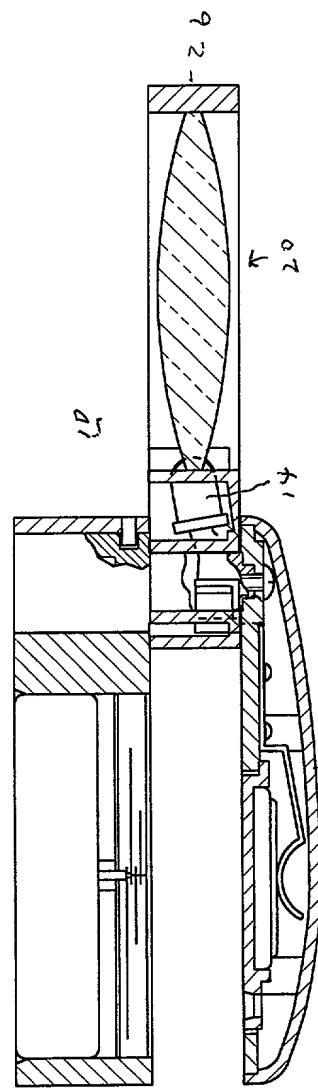


FIG. 21

DECLARATION AND POWER OF ATTORNEY

As a below-named inventor, I hereby declare that:

My residence, post office address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

TRAVEL ALARM

(Title of Invention)

the specification of which:

(check one)

is attached hereto.

was filed on _____

Application Docket No. 7485/62690

and was amended by _____
(if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)

Priority Claimed

Number

Country

Filing Date

Yes

No

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States Application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose to the Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

<u>Application Serial No.</u>	<u>Filing Date</u>	<u>Status</u>

And I hereby appoint Donald S. Dowden (Reg. No. 20,701), Ivan S. Kavrukov (Reg. No. 25161), Thomas F. Moran (Reg. No. 16579; Christopher C. Dunham (Reg. No. 22031); Norman H. Zivin (Reg. No. 25385), John P. White (Reg. No. 28678); Thomas G. Carulli (Reg. No. 30616); Robert D. Katz (Reg. No. 30141); and Peter J. Phillips (Reg. No. 29691) and each of them, all c/o Cooper & Dunham of 1185 Avenue of the Americas, New York, New York 10036 (Tel. 212 278-0400), my attorneys, each with full power of substitution and revocation, to prosecute this application, to make alterations and amendments therein, to receive the patent, to transact all business in the Patent and Trademark Office connected herewith and to file any International Applications which are based thereon under the provisions of the Patent Cooperation Treaty.

Please address all communications, and direct all telephone calls, regarding this application to:

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Cooper & Dunham
1185 Avenue of the Americas
New York, New York 10036
Tel. (212) 278-0400

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or
first joint inventor Noel E. Zeller

Inventor's signature _____

Citizenship United States Date of signature _____

Residence Harrison, New York

Post Office Address c/o Zelco Industries, Inc., 65 Haven Avenue, Mount Vernon, New York 10553